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Exercise - I (Conceptual Questions) Build Up Your Understanding

NOMENCLATURE, CLASSIFICATION, SPECIES CONCEPT

1. Mayr proposed which type of concept of species :-
(1) Taxonomic concept
(2) Biological concept
(3) Taxonomic and Biological concept
(4) Genetic concept

2. Artificial system of classification classifies plants on the basis of :-
(1) One or two characters
(2) Phylogenetic trends
(3) Many naturally existing characters
(4) None of the above

3. The term systematics was introduced by :-
(1) Mayr (2) Bentham
(3) Hutchinson (4) Linnaeus

4. Group of organisms that closely resemble each other and freely interbreed in nature, constitute a:-
(1) Species (2) Genus
(3) Family (4) Taxon

5. ICBN was first published in :-
(1) 1961 (2) 1964 (3) 1975 (4) 1753

6. The term taxon refers to :-
(1) Name of a species
(2) Name of genus
(3) Name of family
(4) A taxonomic group of any rank

7. Couplet represents the choice made between stwo opposite options which results in :-
(1) Rejection of both the option.
(2) Acceptance of both the option.
(3) Either acceptance or rejection of both the option.
(4) Acceptance of only one and rejection of the other

8. The basic smallest unit of classifications is :-
(1) Genus (2) Species
(3) Order (4) All of the above

9. Taxonomy term was given by :-
(1) Linnaeus (2) Mayr
(3) Haeckel (4) A.P. de. Candolle

10. Plant nomenclature means :-
(1) To give names to plants without any rules
(2) Nomenclature of plants under the international rules
(3) Nomenclature of plants in local language
(4) Nomenclature of plants in English language

11. Which of the following is a correct name ?
(1) *Solanum tuberosum*
(2) *Solanum Tuberosum*
(3) *Solanum tuberosum* Linn.
(4) All the above

12. Systematics deals with :-
(1) Classification (2) Nomenclature
(3) Identification (4) All of these

13. Scientific name of Mango plant is *Mangifera indica* Linn. in the above name Linn. refers to:
(1) Variety of Mango
(2) A taxonomist who proposed the present nomenclature in honour of Linnaeus
(3) A scientist who for the first time described Mango plant
(4) A scientist who changed the name proposed by Linnaeus and proposed present name

14. Angiospermae is taxa at the rank of?
(1) Genus (2) Order
(3) Class (4) Division

15. A large number of unknown species of plants and animals are believed to be present in :-
(1) Temperate forests (2) Antarctica
(3) Taiga (4) Tropical forest

16. Who wrote species plantarum ?
(1) Linnaeus (2) Mayr
(3) Bentham (4) Aristotle

17. For higher plants, flowers are chiefly used as a basis of classification, because :–
(1) These show a great variety in colour
(2) It can be preserved easily
(3) Reproductive parts are more conservative than vegetative parts
(4) None of these

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18. Term systematics was derived from _____ word "Systema" which means _____.
(1) Greek, evolutionary relationship
(2) Latin, systematic arrangement of organism
(3) English, taxonomy of organisms
(4) Both (2) & (3)

19. Which of the followings is not an advantage of taxonomy?
(1) Avoid confusion in scientific community
(2) Provides a valid name of an organism
(3) Provides help in studying them.
(4) Prevent loss of biodiversity

20. Which one of the following animals is correctly matched with its correct taxonomic category?
(1) Tiger – *Panthera*, the genus
(2) Solanum – china rose, the genus
(3) Humans – Primata, the family
(4) Housefly – *Musca*, an order

21. Which of the following taxonomic category of housefly is incorrectly matched?
(1) Genus – *Musca* (2) Family – Muscidae
(3) Order – Primata (4) Class – Insecta

22. Which of the following organisms is not correctly matched with its category?
(1) Human – sapiens, specific epithet
(2) Lion – *Panthera*, genus
(3) Cats – Felidae, genus
(4) Datura – Solanaceae, family

23. Who is regarded as "Darwin of 20th century"?
(1) John Ray (2) Lamarck
(3) Ernst Mayr (4) Darwin

24. The standard size of herbarium sheets is :–
(1) 11.5" × 16.5" (2) 15.5" × 16.5"
(3) 18.5" × 10.5" (4) 20.5" × 21.5"

25. Book "*Systema Naturae*" was written by :-
(1) Mayr (2) Linnaeus
(3) John–Ray (4) Theophrastus

26. Most of the botanical names are derived from the following language:–
(1) German (2) Greek
(3) Latin (4) Spanish

27. In the museums
(1) Living objects are displayed
(2) Non-living objects are displayed
(3) Wild animals are kept
(4) Store house of collected plant specimens that are living.

28. Taxonomic keys are tools that help in.....of organism based on characteristics.
(1) Nomenclature (2) Classification
(3) Neither (1) nor (2) (4) Identification

29. 'Taxa' differs from 'taxon' due to being: -
(1) A higher taxonomic category than taxon.
(2) Lower taxonomic category than taxon.
(3) The plural of taxon.
(4) The singular of taxon

30. Which of the following statements are correct about herbarium?
(1) It is a store house of collected plant specimens that are dried and preserved on sheets.
(2) Herbarium sheets contain information about date and place of collection, names, family, collector's name, etc.
(3) It serves as quick referral systems in taxonomical studies.
(4) All of the above

EXERCISE-I (Conceptual Questions) ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	2	1	4	1	1	4	4	2	4	2	3	4	3	3	4
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	1	3	2	4	1	3	3	3	1	2	3	2	4	3	4

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Exercise - II (Previous Year Questions) AIPMT/NEET

AIPMT 2006

1. Evolutionary history of an organism is known as :
(1) Paleontology
(2) Ontogeny
(3) Phylogeny
(4) Ancestry

AIPMT 2007

2. Two plants can be conclusively said to belong to the same species if they :
(1) Have same number of chromosomes
(2) Can reproduce freely with each other and form seeds
(3) Have more than 90 percent similar genes
(4) Look similar and possess identical secondary metabolites.

3. ICBN stands for :
(1) Indian Code of Botanical Nomenclature
(2) Indian Congress of Biological Names
(3) International Code of Botanical Nomenclature
(4) International Congress of Biological Names

NEET-UG 2013

4. Which one of the following is not a correct statements ?
(1) Key is taxonomic aid for identification of specimens
(2) Herbarium houses dried, pressed and preserved plant specimens
(3) Botanical gardens have collection of living plants for reference
(4) A museum has collection of photographs of plants and animals

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NEET-I 2016

5. Nomenclature is governed by certain universal rules. Which one of the following is contrary to the rules of nomenclature?
(1) Biological names can be written in any language
(2) The first word in a biological name represents the genus name, and the second is a specific epithet
(3) The names are written in Latin and are italicised
(4) When written by hand, the names are to be underlined

NEET-II 2016

6. The label of a herbarium sheet does not carry information on :
(1) Local names
(2) height of the plant
(3) date of collection
(4) name of collector

7. Match Column–I with Column–II for housefly classification and select the correct option using the codes given below :

Column–I		Column–II	
(a)	Family	(i)	Diptera
(b)	Order	(ii)	Arthropoda
(c)	Class	(iii)	Muscidae
(d)	Phylum	(iv)	Insecta

Codes :

	(a)	(b)	(c)	(d)
(1)	(iv)	(iii)	(ii)	(i)
(2)	(iv)	(ii)	(i)	(iii)
(3)	(iii)	(i)	(iv)	(ii)
(4)	(iii)	(ii)	(iv)	(i)

8. Study the four statements (A–D) given below and select the two correct ones out of them :

(A) Definition of biological species was given by Ernst Mayr.

(B) Photoperiod does not affect reproduction in plants.

(C) Binomial nomenclature system was given by R.H. Whittaker.

(D) In unicellular organisms, reproduction is synonymous with growth.

The two correct statements are

(1) A and D (2) A and B

(3) B and C (4) C and D

NEET-UG 2018

9. Match the items given in Column I with those in Column II and select the correct option given below:-

	Column I		Column II
(a)	Herbarium	(i)	It is a place having a collection of preserved plants and animals.
(b)	Key	(ii)	A list that enumerates methodically all the species found in an area with brief description aiding identification.
(c)	Museum	(iii)	Is a place where dried and pressed plant specimens mounted on sheets are kept.
(d)	Catalogue	(iv)	A booklet containing a list of characters and their alternates which are helpful in identification of various taxa.

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	a	b	c	d
(1)	i	iv	iii	ii
(2)	iii	ii	i	iv
(3)	ii	iv	iii	i
(4)	iii	iv	i	ii

NEET-UG 2019

10. Select **correctly** written scientific name of Mango which was first described by Carolus Linnaeus:

(1) *Mangifera indica* Car. Linn.

(2) *Mangifera indica* Linn.

(3) *Mangifera indica*

(4) *Mangifera Indica*

NEET-UG 2019 (Odisha)

11. Which of the following is against the rules of ICBN?

(1) Hand written scientific names should be underlined.

(2) Every species should have a generic name and a specific epithet.

(3) Scientific names are in Latin and should be italicized.

(4) Generic and specific names should be written starting with small letters.

12. The contrasting characteristics generally in a pair used for identification of animals in taxonomic key are referred to as :

(1) Lead (2) Couplet

(3) Doublet (4) Alternate

NEET-UG 2021

13. Which one of the following belongs to the family muscidae?

(1) Fire fly

(2) Grasshopper

(3) Cockroach

(4) House fly

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NEET-UG 2022

14. In the taxonomic categories which hierarchial arrangement in ascending order is **correct** in case of animals ?

(1) Kingdom, Class, Phylum, Family, Order, Genus, Species

(2) Kingdom, Order, Class, Phylum, Family, Genus, Species

(3) Kingdom, Order, Phylum, Class, Family, Genus, Species

(4) Kingdom, Phylum, Class, Order, Family, Genus, Specie

Re-NEET-UG 2022

15. Which of the following are true about the taxonomical aid 'key' ?

(a) Keys are based on the similarities and dissimilarities.

(b) Key is analytical in nature.

(c) Keys are based on the contrasting characters in pair called couplet.

(d) Same key can be used for all taxonomic categories.

(e) Each statement in the key is called Lead.

Choose the most appropriate answer from the options given below :

(1) (a), (b) and (c) only

(2) (b), (c) and (d) only

(3) (a), (b), (c) and (e) only

(4) (a), (c), (d) and (e) only

EXERCISE-II (Previous Year Questions) ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	3	2	3	4	1	2	3	1	4	2	4	2	4	4	3

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Exercise - III Master Your Understanding

EXERCISE-III (A) NCERT BASED QUESTIONS

1. The number and types of organisms present on earth make :-
(1) Taxonomy (2) Plant diversity
(3) Animal diversity (4) Biodiversity

2. The process by which anything is grouped into convenient categories based on some easily observable characters is called as:-
(1) Biodiversity (2) Classifications
(3) Identification (4) Nomenclature

3. The process in which biologists follow universally accepted principles to provide name of any organism is called as :-
(1) Identification (2) Classification
(3) Nomenclature (4) Systematics

4. What are the essential basis of modern taxonomic studies ?
(1) External and internal structure
(2) Structure of cell
(3) Developmental process and ecological information
(4) All of these

5. Characterisation of families is done on the basis of:-
(1) Vegetative features
(2) Reproductive features
(3) Both (1) and (2)
(4) None of them

6. In the names *Mangifera indica*, *Solanum tuberosum* and *Panthera leo*, the words *indica*, *tuberosum* and *leo* represent :-
(1) Generic name (2) Generic epithet
(3) Name of species (4) Specific epithet

7. Why the determination of relationship becomes more complex in higher taxonomic categories ?
(1) Number of common characters goes on decreasing in lower taxa
(2) Number of common characters goes on decreasing in higher taxa
(3) Because classification itself is very difficult process
(4) Number of common characters goes on increasing in higher taxa

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8. Which of the following is **not** a correct statement?
(1) Order is the assemblage of families which exhibit a few similar characters in comparisation to families
(2) Convolvulaceae and Solanaceae families are included in order polymoniales mainly on the basis of floral characters
(3) In hierarchy both broad categories and sub categories are used
(4) Class is a sub category which includes related order

9. Which of the following is **not** used as taxonomic aid?
(1) Zoological park (2) Soil
(3) Herbarium (4) Museum

10. In which group of taxonomic aids only the means of taxonomic literature are included:-
(1) Botanical gardens, Museum, Keys
(2) Botanical Gardens, Herbarium, Keys
(3) Flora, Manual, Monograph
(4) Botanical Garden, Museum, Monographs

11. Taxonomists use to prepare and disseminate taxonomic informations by :-
(1) Manuals and monographs
(2) Museum and herbarium
(3) Zoological park and herbarium
(4) Keys and herbarium

12. Largest Botanical garden, Indian Botanical Garden and National Botanical Research Institute are situated respectively at :-
(1) Kew, Lucknow, Howrah
(2) Kew, Howrah, Lucknow
(3) Lucknow, Howrah, Kew
(4) Howrah, Lucknow, Kew

13. Which of the following taxonomic aid is useful only in case of animals ?
(1) Botanical gardens
(2) Museum
(3) Keys
(4) Zoological parks

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14. All the categories used in classification of organism constitute :-
(1) Taxonomy
(2) Systematics
(3) Taxonomic hierarchy
(4) Taxonomic affinity

15. The number of species that are known and described ranges between :
(1) 1-2 million
(2) 1.7 - 1.8 billion
(3) 1.7 - 1.8 million
(4) 7 million

16. Branch of biology, which deals with study of evolutionary relationship between organism:-
(1) Plant anatomy
(2) Systematics
(3) Ecology
(4) Physiology

17. In botanical gardens various plant species are grown for which purpose?
(1) Identification
(2) Nomenclature
(3) Classification
(4) Both 2 and 3

18. Taxonomical aid which contain actual account of habitat and distribution of plants of a given area :
(1) Flora (2) Fauna
(3) Manual (4) Monograph

19. The taxonomic aid, which is useful in providing information for identification of names of species found in an area, called :
(1) Flora (2) Museum
(3) Manual (4) Monograph

20. Monographs are concerned with :
(1) Information of any species only
(2) Information of any genus only
(3) Information of any family only
(4) Information of any one taxon

21. ICZN is used for
(1) Virus (2) Bacteria
(3) Cultivated plants (4) Animals

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EXERCISE-III(B) ANALYTICAL QUESTIONS

22. Practical purpose of taxonomy or classification :-
(1) Facilitate the identification of unknown species.
(2) Explain the origin of organisms.
(3) To know the evolutionary history
(4) Identification of medicinal plants

23. The correct sequence of evolution is :-
(1) Bryophyta → Pteridophyta → Gymnosperms → Dicots → Monocots
(2) Pteridophyta → Gymnosperms → Dicots → Monocots → Bryophyta
(3) Bryophyta → Gymnosperms → Dicots → Monocots → Angiosperms
(4) Bryophyta → Pteridophyta → Gymnosperms → Monocots → Dicots

24. Which of the following more similar in characters as compared to genus ?
(1) Species (2) Division
(3) Class (4) Family

25. Phenetic classification is based on :-
(1) The ancestral lineage of existing organisms
(2) Observable characteristics of existing organisms
(3) Dendograms based on DNA characteristics
(4) Sexual characteristics

26. Species are considered as :-
(1) Real basic units of classification
(2) The lowest units of classification
(3) Artificial concept of human mind
(4) Biggest units of classification devised by taxonomists

27. Which of the following is not true for a species?
(1) Variations occur among members of a species
(2) Gene flow does not occur between the populations of a species
(3) Each species is reproductively isolated from every other species
(4) Members of a species can interbreed

28. As we go from species to kingdom in a taxonomic hierarchy, the number of common characteristics
(1) Will decrease
(2) Will increase
(3) Remain same
(4) May increase or decrease

29. How many are the **incorrect** statements from the followings ?
(A) In museum insects are preserved in insect boxes after collecting and killing.
(B) Monkey, gorilla and gibbon are placed in class mammalia.
(C) In an order similar characters are more as compared to different genera included in a family.
(D) Three pairs of jointed legs are present in all chordates.
(1) Two (2) Three
(3) One (4) Four

30. Which of the following is / are not correctly match?

	Common Name	Genus	Family
(i)	Man	*Homo*	Hominidae
(ii)	Housefly	*Musa*	Muscidae
(iii)	Mango	*Mangifera*	Anacardiaceae
(iv)	Wheat	*Triticum*	Poaceae

(1) i & ii (2) only i
(3) only ii (4) iii & iv

31. How many of the followings are taxa ?
Dogs, Cats, Mammals, Wheat, Rice, Plants, Wood, Mango, Leaves, Jointed legs.
(1) Eight (2) Six
(3) Seven (4) One

32. Identify A and B and select the right option giving their some of the features correctly ?

(A)

(B)

	I	II	III
(1)	(A) is Herbarium	Plant specimens are stored alive	Help in identification of plant
(2)	(B) is Herbarium	Animal specimens are stored alive	Help in studying anatomy
(3)	(B) is zoological park	Living animals are kept there	Help in studying animal behaviour
(4)	(A) is zoological park	Living plant parts are kept	Help to study plant physiology

33. How many are the **incorrect** statements from the followings ?
(A) Lower the taxa, more are the characteristics that the members within the taxon share
(B) Higher the taxonomic category, greater is the difficulty of determining the relationships to other taxa at the same level
(C) In lower taxa the problems of classification becomes more complex
(D) As we go higher from species to kingdom, the number of common characters increases
(1) One (2) Two (3) Three (4) Four

34. Some taxonomical aids are given in the following options; which option is correct to be used as quick referral system ?
(1) Herbarium and books
(2) Botanical garden and Zoological park
(3) Zoological park and Herbarium
(4) Biological museum and Zoological park

35. Nomenclature is very must in taxonomy which of the following is **not correct** about scientific nomenclature ?
(1) They ensure that each organism has only one name
(2) They also ensure that such a name has not been used for any other known organism
(3) Scientific nomenclature is a standardised naming system
(4) Different countries of the world use different kinds of scientific nomenclature system

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36. The relation of solanaceae and convolvulaceae with polymoniales is similar to the relation occuring in:-
(1) Felidae and canidae with carnivora
(2) Primata and carnivora with mammalia
(3) Amphibia and reptilia with chordata
(4) *Solanum* and *Petunia* with solanaceae

37. Which of the following 'suffixes' used for units of classification in plants indicates a taxonomic category of 'family'.
(1) Ales (2) Onae (3) Aceae (4) Ae

38. The term 'systematics' refers to:
(1) Identification and classification of plants and animals
(2) Nomenclature and identification of plants and animals
(3) Diversity of kinds of organisms and their relationship
(4) Different kinds of organisms and their classification

39. Genus represents
(1) An individual plant or animal
(2) A collection of plants or animals
(3) Group of closely related species of plants or animals
(4) None of these

40. The taxonomic unit 'Phylum' in the classification of animals is equivalent to which hierarchial level in classification of plants
(1) Class (2) Order
(3) Division (4) Family

41. Botanical gardens and zoological parks have
(1) Collection of endemic living species only
(2) Collection of exotic living species only
(3) Collection of endemic and exotic living species
(4) Collection of only local plants and animals

42. Taxonomic key is one of the taxonomic tools in the identification and classification of plants and animals. It is used in the preparation of
(1) Monographs (2) Flora
(3) Both (1) & (2) (4) None of these

43. All living organisms are linked to one another because
(1) They have common genetic material of the same type
(2) They share common genetic material but to varying degrees
(3) All have common cellular organization
(4) All of above

44. Which of the following is a defining characteristic of living organisms?
(1) Growth
(2) Ability to make sound
(3) Reproduction
(4) Response to external stimuli

45. Match the following and choose the correct option:

A. Family	i. *Solanum tuberosum*
B. Kingdom	ii. Polymoniales
C. Order	iii. *Solanum*
D. Species	iv. Plantae
E. Genus	v. Solanaceae

Options:
(1) i-D, ii-C, iii-E, iv-B, v-A
(2) i-E, ii-D, iii-B, iv-A, v-C
(3) i-D, ii-E, iii-B, iv-A, v-C
(4) i-E, ii-C, iii-B, iv-A, v-D

46. What is been deified by early man?
(1) All in animates
(2) All animates
(3) Some animates and some in animates
(4) All living beings

47. What was the biggest spin off (outcome) of systematic studies?
(1) Recognition of the sharing of similarities among living organisms only horizontally
(2) Recognition of the sharing of similarities among living organisms only vertically
(3) Recognition of the sharing of similarities among living organisms horizontally as we as vertically
(4) Recognition of importance of non-living.

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48. Revelation of which information humbled man and they started conservation of biodiversity?
(1) All the organisms have soul.
(2) All living organisms has RNA.
(3) All living organisms share common genetic material.
(4) All living organisms has life span.

49. In the given columns, column I contains the terms and column II contains its description. Select the correct match from the option given below.

Column I		Column II	
A.	Growth	I.	Production of offspring
B.	Reproduction	II.	Composed of one or more living cells
C.	Metabolism	III.	Increase in mass and increase in number of individuals
D	Cellular organization	IV.	Sum total of all chemical reactions occurring in a living body

(1) A-I, B-II, C-III, D-IV
(2) A-III, B-II, C-II, D-IV
(3) A-III, B-I, C-IV, D-II
(4) A-II, B-IV, C-III, D-I

50. Which of the followings is an unique feature of living organisms?
(1) Growth and reproduction
(2) Reproduction and ability to sense environment
(3) Metabolism and consciousness
(4) All of the above

51. Which of the followings is not true?
(1) Emergent properties is found in every level of biological organization
(2) Emergent properties do not present in a level that is beyond the organism
(3) Homeostasis indicates ability of self-regulation
(4) Mechanisms of homeostasis is different for different parameters.

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52. Adaption is_____
(1) Types of living beings present on earth
(2) Essential character of an organism that is necessary for it's survival.
(3) Inability to respond against environmental cue
(4) Types of flora present in an area.

53. Match column I with column II and selected the correct option from the codes given below.

Column I		Column II	
(a)	Family	i.	*tuberosum*
(b)	Kingdom	ii.	Polymonials
(c)	Order	iii.	*Solanum*
(d)	Species	iv.	Plantae
(e)	Genus	v.	Solanaceae

(1) (a)-v, (b)-iv, (c)-ii, (d)-i, (e)-iii
(2) (a)-v, (b)-iv, (c)-i, (d)-iii, (e)-ii
(3) (a)-i, (b)-ii, (c)-iii, (d)-v, (e)-iv
(4) (a)-ii, (b)-i, (c)-iii, (d)-iv, (e)-v

54. Genus represents aggregate of closely related species. Which of the following group of species does not belong to same genus?
(1) Potato, Brinjal
(2) Brinjal, Makoi
(3) Lion, Leopard
(4) Potato, Sweet potatc

55. Which two points are known as the twin characteristics of growth?
(i) Increase in mass
(ii) Differentiation
(iii) Increase in number of individuals
(iv) Response to stimuli
(1) (i) and (ii) (2) (i) and (iv)
(3) (ii) and (iii) (4) (i) and (iii)

56. Which of the following statements are not correct ?
(i) Lower the taxon, more are the characteristics that the members within the taxon share.
(ii) Order is the assemblage of genera which exhibit a few similar characters.
(iii) Cat and dog are included in the same family Felidae.
(iv) Binomial nomenclature was introduced by Carolus Linnaeus.
(1) (i), (ii) and (iii) (2) (ii), (iii) and (iv)
(3) (i) and (iv) (4) (ii) and (iii)

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57. Which of the following statements are correct?
(i) Genus comprises a group of related species.
(ii) Taxon represents a taxonomic group of individual organisms.
(iii) Family comprises a group of related genera.
(iv) Taxonomic category class includes related orders.
(1) (i), (ii), and (iv) (2) (ii) and (iv)
(3) (i), (iii) and (iv) (4) (ii), (iii) and (iv)

58. Which of the following statement(s) is/are correct ?
(i) Classification is the providing of standardize names to the organisms such that a particular organism known by the same all over the world.
(ii) Taxonomy is the correct description of an organism and to recognition in its scientific name.
(iii) The system of naming with two components (binomial nomenclature) is proposed by Carolus Linneaus.
(iv) Zoological names are based on International Code for Zoological Nomenclature (ICZN).
(1) Only (i) (2) Both (iii) and (iv)
(3) Only (iv) (4) All of these

59. Which of the following statement(s) is/are not correct ?
(i) Genus comprises a group of related species which has more characters in common in comparison to species of other genera.
(ii) Three different genera such as Solanum, Datura and Petunia are placed in the family malvaceae.
(iii) In case of plants, classes with a few similar characters are assigned to a higher category called phylum.
(1) Both (i) and (ii) (2) Only (iii)
(3) Both (ii) and (iii) (4) All of these

60. Select the correct statements (i-v) regarding taxonomic categories.
(i) Each step or rank in hierarchy is called taxonomic category.
(ii) Species is a group of individual organisms with fundamental similarities capable of breeding among themselves.
(iii) Taxonomic studies of all unknown organisms have led to the development of common categories like kingdom, phylum or division, class, order, family, genus and species.
(iv) Lower the category, greater is the difficulty of determining the relationship to other taxa at the same level.
(1) (i) & (ii) only (2) (ii) & (iv) only
(3) (i), (ii) & (iii) only (4) All of the above

61. **Assertion :** Taxon and category are different things.
Reason : Category shows hierarchical classification.
(1) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
(2) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
(3) If Assertion is true but Reason is false.
(4) If both Assertion and Reason are false.

62. **Assertion :** The species is reproductively isolated natural population.
Reason : Prokaryotes cannot be kept under different species on the basis of reproductive isolation.
(1) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
(2) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
(3) If Assertion is true but Reason is false.
(4) If both Assertion and Reason are false.

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63. **Assertion :** Information given on the label of herbarium sheets does not include family.
Reason : Families are characterized on the basis of reproductive features of plant species only.
(1) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
(2) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
(3) If Assertion is true but Reason is false.
(4) If both Assertion and Reason are false.

64. **Assertion :** Flora contains the actual account of habitat and distribution of plants of a given area.
Reason : Flora helps in correct identification.
(1) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
(2) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
(3) If Assertion is true but Reason is false.
(4) If both Assertion and Reason are false.

65. **Assertion :** Scientific names for plants have been standardized through ICBN.
Reason : Naming system which used three word format was given by Linnaeus.
(1) If both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.
(2) If both Assertion and Reason are true but the Reason is not the correct explanation of the Assertion.
(3) If Assertion is true but Reason is false.
(4) If both Assertion and Reason are false.

EXERCISE-III ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	4	2	3	4	3	4	2	4	2	3	1	2	4	3	3
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	2	1	1	3	4	4	1	1	1	2	1,2	2	1	1	3
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	3	3	2	1	4	1	3	3	3	3	3	3	2	4	1
Question	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Answer	3	3	3	3	3	2	2	1	4	4	4	3	2	3	1
Question	61	62	63	64	65										
Answer	1	2	4	2	3										

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